

REMARKS

Claims 2-4 and 11-13 are pending in the application and stand rejected.
New claim 14 is presented.

The present invention is directed to a digital camera that can be connected to independent color printers. The digital camera captures digital images, processes the captured images, and stores the captured images in a nonvolatile memory. This processing includes a first color space transformation to compensate for the color characteristics of the digital camera. This first color space transformation is independent of the characteristics of the printer, since the characteristics of the printer to be used are not yet known. Subsequently, the digital camera is connected to a separate printer having predetermined process colors and printing process characteristics. The digital camera then processes the stored image prior to printing. This processing includes a second color space transformation to compensate for the characteristics of the printer. Thus, there are two separate color space transformation steps, both provided by the digital camera.

The claims have been amended to more clearly set forth that the printer parameters are stored in the printers, and that these parameters are uploaded from the printer to the camera via the same camera/printer interface that is used to download images from the camera to the printer. Connecting different printers to the camera of the present invention will result in different parameters being used to create different processed images.

The Office Action admits that Koike et al. does not disclose "a printer interface for receiving process color and printing process parameters from different printers having different predetermined process." The Office Action goes on to note that Ohta discloses a printer condition setting means 9 used to set various output conditions of the connected printer. The rejection is based on the Examiner's belief that "it would therefore have been obvious to modify the Koike et al. image reading apparatus to printer interface for receiving process color and printing process parameters from different printers.

However, Ohta is merely another color management patent that describes processing on a host personal computer (not in a digital camera) to compensate for a particular printer 11. In Ohta, the host personal computer connects to




printer 11 via a first interface (between color space conversion means 2 and printer 11). Information is received from a "printer condition setting means" 9, which is not well described, but which is clearly not part of printer 11. Thus information is received by the camera from printer condition setting means 9 via a totally separate and different interface from the camera/printer interface that is used to download images from the camera to the printer.

It is respectfully submitted, therefore, that in view of the above amendments and remarks, that this application is now in condition for allowance, prompt notice of which is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) is captioned "Version With Markings To Show Changes Made".

Respectfully submitted,


Attorney for Applicant
Registration No. 24,516

Milton S. Sales/jrk
Rochester, NY 14650
Telephone: (716) 588-2718
Facsimile: (716) 477-1148

Version With Markings To Show Changes Made

In the Claims:

4. (Seven Times Amended) A digital camera for use with separate color printers each of which having different predetermined process color and printing process parameters, a camera interface, a processor, a program memory, and a marking apparatus under the control of the processor; said camera comprising:

an imager to capture images;

a non-volatile memory;

a printer interface for both receiving process color and printing process parameters from the camera interface of a one of the printers in response to connection of the one of the printers to the camera, and for also transmitting processed images to the one of the printers, wherein the camera receives color and printing process parameters from the one of the printers and stores the parameters in the non-volatile memory; and

an image processor adapted to sequentially:

(a) initially process the captured image, by (i) a first color space transformation and (ii) compression, to thereby produce processed image data,

(b) then store the processed image data in said non-volatile memory,

[and]

(c) [finally] further process the stored initially processed image data to effect decompression and then, using the stored parameters, to effect compensation for printer characteristics responsive to received parameters and including a second color space transformation into color planes that coincide with the printer process colors of the one of the printers, and

(d) finally supply the color planes that coincide with the printer process colors to the one of the printers using the printer interface.

11. (Four Times Amended) A process for digital cameras used with separate color printers each having different predetermined process colors and printing process characteristics, said process including the sequential steps of:

capturing an image on an imager;

processing the captured image by (i) color filter interpolation, (ii) a first color space transformation, and (iii) compression to produce first processed image data;

storing the first processed image data;

connecting a one of the printers to the camera via a printer interface;

receiving process color and printing process parameters from the one of the printers via the printer interface;

further processing the stored first processed image data to effect decompression and compensation for the characteristics of the one of the printers responsive to received parameters to produce second processed image data, wherein said compensation includes a second color space transformation; and

transmitting second processed [images] image data to the one of the printers using said printer interface.

Claim 14 is new.